



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,137	01/28/2004	Takayuki Onodera	248135US3	9718
22850	7590	06/02/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				CRENSHAW, MARVIN P
ART UNIT		PAPER NUMBER		
		2854		

DATE MAILED: 06/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/765,137	ONODERA ET AL.	
	Examiner Marvin P. Crenshaw	<b>Art Unit</b> 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on the amendment filed on 03/06/2006.

2a) This action is FINAL.                    2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 - 20 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1 - 20 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on 20 January 2004 is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_

5) Notice of Informal Patent Application (PTO-152)

6) Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 5 – 8 and 11 - 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (5,943,954) in view of Schwopfinger (5,320,042) and Marentes et al. (5,488,467).

With respect to claim 1, Otomo teaches a duplex stencil printer (Fig. 4) comprising a print drum (79) comprising a porous hollow cylinder rotatably supported and configured such that a perforated stencil is wrapped around an outer periphery of said print drum, pressing means (80) for forming a pressing portion when pressed against said print drum, feeding means (25) for feeding a sheet-like recording medium toward said pressing portion and a plurality of conveying members (30) configured to convey the recording medium and wherein the second roller (Fig. 4) is configured to contact a surface of the recording medium that is opposite to a surface of the recording medium that contacts the print medium during a pass of the recording medium through the printer.

However, Otomo does not teach having the second roller with a surface provided with a highly oil-repellent surface configuration.

Schwopfinger teaches a surface first is provided with a highly oil-repellent surface configuration (See Abstract). This surface configuration permits the roller to be easily cleaned (Abstract, line 17) while still assuring the roller is sufficiently rough to feed the media.

It would have been obvious to one of ordinary skill in the art to provide Otomo to have a second roller (back surface of the roller) with a surface provided with a highly oil-repellent surface configuration as taught by Schwopfinger, since Schwopfinger teaches that such a roller provides the advantage of being easily cleaned while maintaining its media feeding function.

However, Otomo as modified by Schwodfinger does not teach wherein one of the conveying members comprises a cam member with a registration roller pair including a first roller disposed on a lever and the cam member configured to contact an end of the lever to move the first roller into and out of contact with a second roller.

Marentes et al. teaches wherein one of the conveying members (Fig. 1) comprises a cam member (16) with a registration roller pair including a first roller (10) disposed on a lever (12) and the cam member configured to contact an end of the lever to move the first roller into and out of contact with a second roller (22).

It would have been obvious to further modify Otomo to have one of the conveying members comprises a cam member with a registration roller pair including a first roller disposed on a lever and the cam member configured to contact an end of the lever to move the first roller into and out of contact with a second roller as taught by Marentes et

Art Unit: 2854

al. so as to provide an effective means for moving the a first roller in and out of contact with a second roller to transport a sheet of paper.

With respect to claim 2, Otomo teaches the printer wherein a registration roller pair is configured to convey the recording medium toward said pressing portion at a preselected timing (See col. 5, lines 57 - 65).

With respect to claim 8, Otomo teaches a duplex stencil printer (Fig. 4) comprising a print drum (79) comprising a porous hollow cylinder rotatably supported and configured such that a perforated stencil is wrapped around an outer periphery of said print drum, pressing means (80) for forming a pressing portion when drum pressed against said print feeding means for feeding a sheet-like recording medium toward said pressing portion and a registration roller pair (30) configured to convey the recording medium toward said pressing portion at a preselected timing (See col. 5, lines 57 - 65) and wherein the second roller (Fig. 4) is configured to contact a surface of the recording medium that is opposite to a surface of the recording medium that contacts the print medium during a pass of the recording medium through the printer.

However, Otomo does not teach having a first surface of a registration roller pair provided with a highly oil-repellent surface configuration.

Schwopfinger teaches a first surface is provided with a highly oil-repellent surface configuration (See Abstract). This surface configuration permits the roller to be easily cleaned (Abstract, line 17) while still assuring the roller is sufficiently rough to feed the media.

It would have been obvious to one of ordinary skill in the art to provide Otomo to have a first surface (back surface of the roller) of a registration roller pair is provided with a highly oil-repellent surface configuration as taught by Schwopfinger, since Schwopfinger teaches that such a roller provides the advantage of being easily cleaned while maintaining its media feeding function.

With respect to claims 5 – 7 and 11 – 13, Otomo does not teach having a fine oil-repellant grains are positioned on a surface on a roller.

With respect to claim 5 – 7 and 11 - 13, Schwopfinger teaches having a fine oil-repellent grains (See col. 1, lines 45 – 57) are positioned on a surface of the second roller, wherein said fine oil-repellent grains comprise glass beads (6) and wherein a sheet holding said fine oil-repellent grains integrally therewith, adhered to the surface of the one roller (See col. 1, lines 17 – 25).

It would have been obvious to further modify Otomo to have a roller with oil-repellent grains over the surface of the roller as taught by Schwopfinger to provide an efficient means for transporting the sheet through the printing press without the ink smearing.

With respect to claims 14 – 19, Otomo as modified by Schwopfinger do not teach wherein one of the conveying members comprises a follower member disposed on the end of a lever and a cam configured to contact the lever.

Marentas et al. teaches a printer wherein the one of the conveying members comprises a follower member disposed on the end of the lever (12), and the cam (16)

member is configured to contact the follower (20) member to move the first roller into and out of contact with the second roller, wherein the follower member is rotatably mounted on the end of the lever (Fig. 1), wherein the lever (12) is configured to pivot on a pivot shaft (14) disposed between the end of the lever and the first roller, further comprising a follower (20) member disposed on the end of the lever, the follower member (20) configured to be contacted by the cam member to move the second roller into and out of contact with the one roller, wherein the follower member (20) is rotatably mounted on the end of the lever and the lever is configured to pivot on a pivot shaft disposed between the end of the lever and the second roller.

It would have been obvious to further modify Otomo to have one of the conveying members comprises a follower member disposed on the end of a lever and a cam configured to contact the lever as taught by Marentas et al. to provide an effective means for moving the first roller in and out of contact with a second roller to convey to the recording medium.

With respect to claim 20, Otomo teaches a duplex stencil printer (Fig. 4) comprising a stencil forming (79) device configured to form a stencil a print drum configured to form an image corresponding to the stencil, a pressing member (80) configured to press a recording medium against the print drum to transfer the image to the recording medium, and first (30) and second (30) rollers to deliver the recording medium to the pressing member and wherein the second roller (Fig. 4) is configured to contact a surface of the recording medium that is opposite to a surface of the recording medium that contacts the print medium during a pass of the recording medium through the printer.

However, Otomo does not teach a first roller disposed on a lever, second roller with a surface structure and a cam member configured to move the first roller in and out of contact with a second roller.

Marentas et al. teaches a first roller (10) disposed on an end of a lever (12), and the second roller (22) comprising a surface configured to prevent adherence of the image to the second roller and a cam (16) member configured to contact the end of the lever to move the first roller into and out of contact with the second roller.

It would have been obvious to modify Otomo to have a first roller disposed on a lever, second roller with a surface structure and a cam member configured to move the first roller in and out of contact with a second roller as taught by Marentas et al. to provide and effective means for moving the first roller in and out of contact with a second roller to convey to the recording medium.

Claims 3, 4, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo in view of Schwopfinger and Marentes et al. and further in view of Kon (JP 58002146A).

Otomo as modified by Schwopfinger and Marentes et al. teach all that is claimed, as discussed in the above rejection of claims 1, 2, 5 – 8 and 11 - 13, except one roller of the registration roller pair has a surface formed of Fluororubber:

With respect to claim 3, 4, 9 and 10, Kon teaches having a second roller of a roller pair expected to contact the image surface of the recording medium is formed of fluororubber (See Abstract) and wherein a fluororubber (See Abstract) layer is formed

on a surface of the one roller of the registration roller pair expected to contact the image surface of the recording medium.

It would have been obvious to further modify Otomo to have the second roller of the registration roller pair has a surface formed of Fluororubber as taught by Kon so that the roller will not swell when it is brought into contact with the paper.

### ***Response to Arguments***

Applicant's arguments filed March 06, 2006 have been fully considered but they are not persuasive. Specifically, Otomo teaches a duplex printing device. Since applicant has not claimed that the media is fed twice, where it prints on one side and then the media is turned over so printing can be done on the other side. Otomo has the capabilities of re-feeding a sheet so both sides of a media can be printed on for duplex printing.

With respect to applicant's arguments of Schowpfinger not teaching a registration roller surface provided with an oil-repellent material, since, the Schowpfinger roller is used for guiding a web of material in a printing machine it would be obvious to one of ordinary skill in the art that his roller could also be used in any type of printing machine, including a duplex printer. It would be beneficial to provide Otomo to have the oil-repellant surface of Schowpfinger to provide an advantageous means for transporting the sheet through the printing press without the ink smearing.

### ***Conclusion***

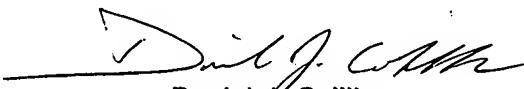
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marvin P. Crenshaw whose telephone number is (571) 272-2158. The examiner can normally be reached on Monday - Thursday 7:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



MPC  
May 25, 2006



Daniel J. Colilla  
Primary Examiner  
Art Unit 2854